

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of October 24, 2003 has been received and its contents carefully reviewed.

Claims 1-13 are pending in the current application.

The Examiner objects to the drawings, requesting that Figure 4 include the label "Prior Art". Figure 4 is not Prior or Related Art, but rather depicts an embodiment of Applicant's invention, as described on page 9 of the specification. While the Figure bears some superficial and stylistic resemblance to another reference, the substance of the Figure in light of its description make it quite clear that Figure 4 is not Prior or Related Art.

The Examiner objects to the specification. Applicant has amended the specification, as respectfully requests the Examiner to withdraw the objection. However, Applicants respectfully disagree with the Examiner's assertion that a "glass" substrate is new matter not inherent in the original disclosure.

The Examiner rejected claims 1-13 under 35 U.S.C § 112, first paragraph. Applicant amends claims 1 and 12 to more broadly recite the features of Applicant's invention. Accordingly, the Examiner is respectfully requested to withdraw this rejection.

The Examiner rejected claims 1, 2, and 11 under 35 U.S.C. § 102(a)/102(e) as being anticipated by Havemann et al. (U.S. Patent No. 5,891,804). The Examiner rejected claims 4, 5, 7, 8, and 10 under 35 U.S.C. 103(a) as being unpatentable over Havemann as applied to claims 1 and 2 above, and further in view of Senda et al. (U.S. Patent No. 5,364,459). The Examiner rejected claims 3, 6, and 9 under 35 U.S.C. 103(a) as being unpatentable over Havemann and Senda as applied to claims 1, 2, 4, 5, 7, 8, 10, and 11 above, and further in view of Charneski et al. (U.S. Patent No. 6,284,652) and/or Eriksson (U.S. Patent No. 3,632,435). The Examiner rejected claims 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over Havemann and Senda as applied to claims 1, 2, 4, 5, 7, 8, 10, and 11 above, and further in view of (JP 05-265040) and Applicant's Figures 1-3. These rejections are respectfully traversed.

Claim 1 is allowable at least for the reason that claim 1 recites a combination of elements including “etching a portion of the glass substrate to form a groove beneath a top surface of the glass substrate using the photoresist pattern as a mask; [and] depositing a second metal on the glass substrate, a height of the second metal being smaller than a depth of the groove”. None of the cited references teaches or suggests each and every feature of the claims.

The Examiner alleges that Havemann discloses a substrate as recited in the claims. Applicant respectfully disagrees. Havemann does not disclose, teach or suggest “etching a portion of the glass substrate to form a groove beneath a top surface of the glass substrate using the photoresist pattern as a mask; [and] depositing a second metal on the glass substrate, a height of the second metal being smaller than a depth of the groove”. Havemann does not disclose or suggest “a height of the second metal being smaller than the depth of the groove”. In Fig. 3b, neither metal 50 nor conductor 52 is deposited on the substrate, but rather on the encapsulation layer 48 and the metal 50, respectively (Havemann, column 4, lines 44-54). Furthermore, the height of the metal 50 and conductor 52 are not “smaller than the depth of the groove” formed “beneath a top surface of the glass substrate” as required by the claims.

In addition, column 3, lines 29-38 of Havemann recites “FIG 1B show the structure after the photoresist has been patterned and the underlying layers etched down to the substrate 10.” Therefore, Havemann does not disclose etching a portion of a substrate to “form a groove beneath a top surface” of a substrate. Applicant respectfully submits that layers 44/40/42/30 are “additional layers” that in Havemann are clearly not described as part of the substrate (Havemann, column 4, lines 36-41).

By way of another example, another feature of the Applicants’ invention as recited in claim 1 is “removing the photoresist pattern on the glass substrate and the second metal on the photoresist other than in the groove”. But in Havemann, conductor 52 is formed after the removal of the photoresist layer 46, so conduct 52 cannot disclose the second metal recited in claim 1 (Havemann, column 4, lines 51-54).

The Examiner does not allege that any of Senda, Charneski, Eriksson, or JP 05-265040 disclose or suggest at least these features, and Applicant respectfully submits that they do not.

In view of the foregoing amendments, Applicant submits that claim 1 is allowable over the cited reference. Claims 2-13 are allowable at least by virtue of their dependency on claim 1. Applicant respectfully requests that the rejection under 35 U.S.C. §102(a)/§102(e) be withdrawn.

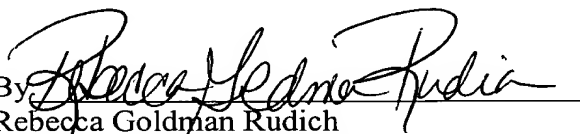
In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Applicant believes the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. Should the Examiner deem that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at (202) 496-7500.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to Deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: December 30, 2003

Respectfully submitted,

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